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**Before and After the Walkthrough:  
What to Do to  
Improve Instructional Rigor**

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# **Getting Rigor Right: Academic Challenge without the Backlash of Failure**

Cheryl Gray

## ***What's so hard about rigor?***

Many school principals want to be assured that academic rigor is present in each classroom and that every student can be successful in their learning. Rigor, or academic challenge, is a difficult concept for teachers to operationalize in to teachers and measure in ways that would provide evidence of improvement. Classroom observations—walkthrough—offer an ideal opportunity for school leaders to understand the level of rigor across the school.

## ***How can rigor unintentionally promote failure?***

Academic rigor is about increasing the complexity of thinking—from simple recall and conceptual understanding to more challenging cognitive processes such as applying, analyzing, evaluating and creating. Increasing rigor in the classroom can be good for a variety of reasons, including better-equipping students for success on statewide assessments and with postsecondary opportunities.

Failure and frustration can be an unintended consequence, though, when rigor is misconstrued as simply being harder content, an increased amount of homework, or a faster rate of instruction. Getting rigor right means simultaneously increasing academic challenge with increased support for both teachers and students to reduce the possibility of a backlash of failure.

## ***How do we get rigor right?***

Balancing challenge and support is at the heart of leading change in schools. To increase rigor in schools, principals need to understand instruction that focuses on diverse cognitive processes, especially the more complex processes of analyzing, evaluating and creating. Educators are experiencing a renewed interest in using Bloom's taxonomy of learning objectives for defining and measuring rigor in the classroom. Cognitive process levels are present in the work of Robert Marzano, Norman Webb, and Loren Anderson and colleagues.

In the classroom, a taxonomy is useful to analyze the alignment of the standard/instructional objective with what actually occurs during instruction and assessment of students. This type of alignment process provides more precision than traditional curriculum mapping processes which align content to the breadth of standards. The depth of the standard, its cognitive complexity, is analyzed and related instruction and assessments are aligned to more precisely meet the intent of the standard.

The alignment process is just one part of an overall effort to improve rigor across a school. Taxonomies are also helpful for school leaders to observe what is occurring in classrooms—the level of questioning by teachers, the depth of responses and type of engagement by students, and the quality and types of assessments to discern thinking skills.

## ***What does support for increasing rigor look like in schools?***

Principal walkthroughs can provide school leaders with a good understanding of the levels of cognitive complexity of instruction and assessment in the classroom. To increase academic challenge, without increasing student failure, requires balancing challenge with support. Best practices of schools that have mastered this balancing act include examining instruction, classroom-based assessment, curriculum coherence, expectations for student work, grading practices, coursetaking or grouping patterns, and student support. Collaboration among teachers is essential to embracing and operating from a mutual understanding of the teacher practices that support rigor.

## Best Practices to Support Rigor

### Instructional Strategies

The instructional strategies that teachers use foster higher levels of learning in their students and increased rigor in their classrooms.

**Questioning Strategies** Teachers use an array of questioning techniques to prompt low, mid and higher level cognitive processing for all students.

**Instruction** Instructional strategies are based on research and selected to match the content and cognitive complexity in the standards and to raise the cognitive complexity of student learning.

**Instructional Leadership** The structure of the school day and organization of the school's resources (time, money, personnel) supports higher levels of learning (i.e., experiential, interdisciplinary, digital or project-based learning) and encourages students to connect learning to real-world problems and situations.

**Academic Press** The school is driven by a quest for academic press as evidenced in its mission and school improvement plan's focus on rigor, cognitive complexity and/or high but achievable academic goals.

**Professional Development** Teachers' support for student learning is improved by the school's professional development plan which has teacher teams learning, implementing and evaluating schoolwide strategies.

### Assessment in the Classroom

Classroom assessments help students be successful with more complex levels of thinking if they provide specific information about student achievement of the learning and content in high standards.

**Alignment to Standards** All classroom assessments are strongly aligned to the cognitive complexity and topics of the grade-level state standards and, when appropriate, go beyond grade-level standards.

**Common Benchmark Assessments** Common assessments, which include high levels of cognitive complexity, are administered across all grades, subjects or courses and are regularly analyzed and revised by learning teams.

**Using Assessment Results** Teachers analyze tests results to diagnose student learning, improve assessments and instruction, and modify curriculum.

**Assessment Literacy** Teachers can select, develop and/or revise assessment items/tasks to measure higher levels of learning and appropriate assessment methods for each level of learning (i.e., paper/pencil, performance-based, portfolio, and presentations).

**Assessment Monitoring** The principal and/or professional learning team monitors and recommends revisions for classroom assessments in all grades, subjects and courses.

### Expectations for Student Work

Expectations that teachers set for quality student work are important to communicate as students are challenged by increased rigor.

**Explicit Expectations** Expectations for performance are explicit in course syllabi, rubrics and assignment directions in most classes.

**Examples of Student Work** Teachers require students to analyze exemplary student and team/group work, prior to assessment on that material, to determine the qualities that make the work proficient.

**Consensus on Proficiency** The school's professional staff (teachers and administrators) has reached consensus on what constitutes proficiency on grade-level standards, and there is little variation among teachers' expectations, rubrics and grading practices.

**Student Understanding of Quality Work** Student evaluations of their own, peers', and team/group work often match teacher and/or rubric definitions for quality.

**High Expectations for All Students** Schools provide the opportunity for all students to produce quality work with policies related to redoing work, re-teaching and grading.

## Grading Practices

Grades assigned to student work are symbols of the teachers' expectations for quality, beliefs about rigor, and understanding of proficiency evidenced in the classroom.

**Grading & Reporting System** The school has a grading and reporting system that identifies criteria for determining and reporting grades (academic and non-achievement factors and the weighting of those factors) including rubrics for performance-based work.

**Alignment of Classroom Grades to External Assessments** Most final grades are positively correlated to student performance on external assessments (state and national).

**Common Grading Criteria** Common grading criteria (of non-academic and academic factors) have been collaboratively established by teachers in all subject areas, grades and/or courses.

**Communication about Grading Practices** All teachers routinely inform students and parents about grading practices/weighting/point systems in course syllabi, lesson plans and assessments.

**Reporting Academic Performance** More than one summative grade is reported for each core subject, with one grade measuring mastery of standards exclusively. Other grades might include either a combination of non-academic and academic factors, or only non-academic factors.

## Curriculum Coherence

The organization and sequencing of the curriculum is critical if students are to perform at higher levels of learning and understand the relevance of their education.

**Curriculum Alignment** The horizontally and vertically aligned curricula are periodically reviewed and realigned to optimize student performance, relevance and academic challenge.

**Curriculum Quality** Strategies are in place and actions are taken to ensure a "tight" alignment (correlation) between the written, taught and tested curricula in most courses/subjects.

**Curriculum Relevance** Based on data, a part of the standards-based school curriculum is reviewed/revised each year for relevance to student's needs and goals with a long-term plan to review/revise the entire curriculum every 5-7 years.

**Cognitive Complexity of Learning** The standards-based objectives, assignments and assessments in most classes accelerate the learning to address the expectations for the next grade, college, or the workplace (increasing the level of cognitive complexity).

**Curriculum Spiraling** The curricula for all subjects introduce knowledge and skills at developmentally appropriate grade levels and increase the level of cognitive complexity of the knowledge and skills in subsequent years.

## Coursetaking or Grouping Patterns

Examining students' coursetaking patterns or identifying school practices for student grouping is important to understand the rigor of the curriculum that individual students experience.

**Counseling and Advisement** Guidance counselors and teachers use objective and subjective data to encourage student placement in college or career-preparatory classes that challenge students to their fullest potential.

**Accelerating Readiness** All students are required to be proficient in the coursework necessary for readiness for the next grade level, college, or the workplace, and the school provides the necessary support to accelerate learning for students who are behind.

**Course Availability: High Schools and Middle Schools ONLY** The school actively encourages all students to complete a concentration area and participate in all rigorous courses, including Advanced Placement (AP) courses and/or the International Baccalaureate (IB) curriculum.

**Graduation Requirements: High Schools ONLY** The rigor of classes required for graduation is aligned with the rigor of credit-bearing first year courses in the state's colleges and universities.

**Equitable Access: High Schools ONLY** Data from master schedules or transcript analyses are reviewed and school practices changed to provide students equitable access to opportunities and, if needed, additional rigorous courses.

## Student Support

Supporting students so that they can learn across all levels of cognitive complexity is an important component of increasing rigor in the school.

**Extra Help** A network of teacher support provides extra help before and after each school day and is required for some students to attend.

**System of Interventions** The primary support for students who are performing below basic proficiency on assignments and assessments is a well-organized, early warning and intervention system to accelerate learning.

**Credit Recovery** Additional credits are awarded students based on demonstration of achievement on standards.

**Student Progress** Students progress at different rates in the curriculum because of placement in double-blocked or accelerated courses, tutorial classes, and dual enrollment programs.

**Literacy Support** Support to reduce literacy barriers related to performing at higher levels of learning in their classroom is part of a schoolwide literacy initiative providing direction for the work of literacy coaches, teachers and students.

## Collaboration

Collaboration within and outside of the school is important to build a common understanding and consistent application of practices that support rigor.

**Focusing Improvement** All faculty, department and grade-level meetings focus on the improvement of curriculum, instruction and assessments, include formal agendas, and support continuous collaboration throughout the year.

**Using an Organizing Framework** Learning teams or whole faculty study groups use an organizing framework (taxonomy) to produce a common way of thinking about and a common vocabulary for talking about academic rigor schoolwide.

**Analyzing Teachers' Work** Teachers collaboratively analyze and revise assignments and assessments to increase the cognitive complexity and alignment to standards.

**Creating Challenging Learning Opportunities** Teachers collaborate across the school to create interdisciplinary opportunities that challenge students to perform at higher levels of learning and integrate learning from a variety of sources.

**Communicating with Home and the Community** Frequent communication and partnerships with home and community increase students' opportunities to apply learning to real-world situations, and understand the relevance of the school's curriculum to their needs and goals.

## Resources:

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# Tips for Effective Walkthroughs

Rusha Sams

## **Prior to the Walkthrough:**

- Determine the purpose (general walkthrough or walkthrough focused on a specific area – rigor, questioning, instructional strategies, formative assessments, etc.).
- Decide indicators to look for.
- Establish a general length of time for each walkthrough.
- Think about how to register observed indicators (notes, checks on a checklist, PDA, etc.).
- Determine how you will keep a record of who has been observed, date of observation, course and/or grade level.
- Think about whether or not you will speak to students during the observation.
- Consider how you can observe all classrooms equitably over the course of time.
- Talk about the walkthrough with faculty – purpose, time frame, procedures, etc.

## **During the Walkthrough:**

- Look at the tasks assigned. What are students asked to do? What are they actually doing?
- Listen for questions: Who's asking? What are the responses?
- Gather specific evidence with no evaluative statements or words like *good*, *great*, *weak*, *bad*, etc.
- Ask yourself what evidence you saw or heard that made you think there were high expectations in the classroom: levels of questions the teacher is asking; levels of questions students are asking; evidence that the teacher is probing, pushing, etc. to help students provide better explanations. Also look at assignments, rubrics, exemplars, student work, etc.
- Use specific terms or quotes to document what you see and hear.
- Avoid noting what you *don't* see or hear.

## **General Suggestions:**

- Visit classrooms at various times of the day.
- Vary the times you visit during the class period – beginning of class, middle, end.
- Spend a short period of time in each classroom, but long enough to observe what both the teacher and the students are doing.
- Stand in various parts of the room to get a feel for different perspectives – What do you see when you stand in front? In back? In the middle?
- Be consistent! Don't just say you'll be observing. Do it. And do it frequently!

Adapted from City, E. A., Elmore, R. F., Fiarman, S. E. & Teitel, L. (2009). *Instructional rounds in education: A network approach to improving teaching and learning*. Cambridge, MA: Harvard Education Press.

## A Walk-Through Focused on Rigor

Rusha Sams

Teacher: \_\_\_\_\_ Room: \_\_\_\_\_ Date: \_\_\_\_\_ No. of Students: \_\_\_\_\_  
 Course: \_\_\_\_\_ Grade: \_\_\_\_\_ Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_

### Teacher Behaviors:

- \_\_\_\_\_ Aligns tasks to standards
- \_\_\_\_\_ Engages all students
- \_\_\_\_\_ Provides meaningful tasks
  - \_\_\_\_\_ at Remember Level
  - \_\_\_\_\_ at Understand Level
  - \_\_\_\_\_ at Apply Level
  - \_\_\_\_\_ at Analyze Level
  - \_\_\_\_\_ at Evaluate Level
  - \_\_\_\_\_ at Create Level
- \_\_\_\_\_ Asks questions
  - \_\_\_\_\_ at Remember Level
  - \_\_\_\_\_ at Understand Level
  - \_\_\_\_\_ at Apply Level
  - \_\_\_\_\_ at Analyze Level
  - \_\_\_\_\_ at Evaluate Level
  - \_\_\_\_\_ at Create Level
- \_\_\_\_\_ Provides support during questioning;
  - \_\_\_\_\_ calls on all students
  - \_\_\_\_\_ Probing, Rephrasing, Scaffolding
  - \_\_\_\_\_ Wait Time
  - \_\_\_\_\_ Feedback
- \_\_\_\_\_ Provides opportunities for collaboration
- \_\_\_\_\_ Monitors
  - \_\_\_\_\_ transitions/grouping/regrouping
- \_\_\_\_\_ Uses formative & summative assessment to inform instruction
- \_\_\_\_\_ Differentiates instruction
- \_\_\_\_\_ Provides rubrics, models of expected outcomes
- \_\_\_\_\_ Facilitates and monitors student work/tasks
- \_\_\_\_\_ Uses academic vocabulary
- \_\_\_\_\_ Uses technology to enhance instruction
- \_\_\_\_\_ Provides structure, routines, direction

### Classroom Attributes:

- \_\_\_\_\_ Academic Vocabulary visible
- \_\_\_\_\_ Objectives/Skills/Standards visible
- \_\_\_\_\_ Assignments/Daily Tasks reflect rigor
- \_\_\_\_\_ Posted Student Work reflects rigor
- \_\_\_\_\_ Desks arranged for learning

Bloom's Taxonomy	
<b>Remember</b>	Remembering, listing, describing, identifying, retrieving, naming, locating, finding, highlighting, searching internet
<b>Understand</b>	Interpreting, summarizing, inferring, paraphrasing, classifying, comparing, contrasting, inferring, explaining, blogging, commenting, annotating,
<b>Apply</b>	Implementing, carrying out, sorting, using, executing, running, operating, uploading, editing
<b>Analyze</b>	Discriminating, organizing, deconstructing, attributing, outlining, finding, structuring, integrating, dissecting, sorting, taking apart
<b>Evaluate</b>	Checking, hypothesizing, critiquing, experimenting, judging, testing, detecting, monitoring, reviewing
<b>Create</b>	Designing, constructing, planning, producing, inventing, devising, making, filming, animating, publishing, video casting, podcasting, directing

### Students:

- \_\_\_\_\_ Actively engaged in activities
- \_\_\_\_\_ Participate with assigned tasks
  - \_\_\_\_\_ at Remember Level
  - \_\_\_\_\_ at Understand Level
  - \_\_\_\_\_ at Apply Level
  - \_\_\_\_\_ at Analyze Level
  - \_\_\_\_\_ at Evaluate Level
  - \_\_\_\_\_ at Create Level
- \_\_\_\_\_ Ask questions
  - \_\_\_\_\_ at Remember Level
  - \_\_\_\_\_ at Understand Level
  - \_\_\_\_\_ at Apply Level
  - \_\_\_\_\_ at Analyze Level
  - \_\_\_\_\_ at Evaluate Level
  - \_\_\_\_\_ at Create Level
- \_\_\_\_\_ Answer questions
  - \_\_\_\_\_ at Remember Level
  - \_\_\_\_\_ at Understand Level
  - \_\_\_\_\_ at Apply Level
  - \_\_\_\_\_ at Analyze Level
  - \_\_\_\_\_ at Evaluate Level
  - \_\_\_\_\_ at Create Level
- \_\_\_\_\_ Exhibit high levels of cognitive tasks in assigned work

## Instruction to Increase Levels of Cognitive Complexity

<b>Cognitive Process Dimension</b>						
<p><b>This revised Bloom's Taxonomy will assist you as you work to improve instruction to ensure that</b></p> <ul style="list-style-type: none"> <li>standards, lessons, and assessments are aligned.</li> <li>lessons are cognitively rich.</li> <li>instructional opportunities are not missed.</li> </ul>	<p><b>1. Remember:</b> retrieving relevant knowledge from long term memory</p> <ul style="list-style-type: none"> <li>Recognizing</li> <li>Recalling</li> </ul>	<p><b>2. Understand:</b> figuring out meaning</p> <ul style="list-style-type: none"> <li>Interpreting</li> <li>Exemplifying</li> <li>Classifying</li> <li>Summarizing</li> <li>Inferring</li> <li>Comparing</li> <li>Explaining</li> </ul>	<p><b>3. Apply:</b> carrying out or using a procedure in a given situation</p> <ul style="list-style-type: none"> <li>Executing</li> <li>Implementing</li> </ul>	<p><b>4. Analyze:</b> breaking material into parts and detecting how the parts relate to one another and to an overall structure or purpose</p> <ul style="list-style-type: none"> <li>Differentiating</li> <li>Organizing</li> <li>Attributing</li> </ul>	<p><b>5. Evaluate:</b> making judgments based on criteria and standards</p> <ul style="list-style-type: none"> <li>Checking</li> <li>Critiquing</li> </ul>	<p><b>6. Create:</b> putting elements together to form a novel, coherent whole or make an original product.</p> <ul style="list-style-type: none"> <li>Generating</li> <li>Planning</li> <li>Producing</li> </ul>
<p><b>A. Factual Knowledge:</b> basic elements that students must know to be acquainted with a discipline or solve a problem in it.</p> <ul style="list-style-type: none"> <li>Knowledge of terminology</li> <li>Knowledge of specific details and elements</li> </ul>						
<p><b>B. Conceptual knowledge:</b> the relationships among the basic elements within a larger structure that enable them to function together</p> <ul style="list-style-type: none"> <li>Knowledge of classification</li> <li>Knowledge of principles and generalizations</li> <li>Knowledge of theories, models and structures</li> </ul>						
<p><b>C. Procedural knowledge:</b> how to do something: methods of inquiry, and criteria for using skills, algorithms, techniques and methods</p> <ul style="list-style-type: none"> <li>Knowledge of subject specific skills and algorithms</li> <li>Knowledge of techniques and methods</li> <li>Knowledge of criteria for determining when to use appropriate procedures</li> </ul>						
<p><b>D. Metacognitive knowledge:</b> knowledge of cognition in general as well as awareness of one's own cognition</p> <ul style="list-style-type: none"> <li>Strategic knowledge</li> <li>Cognitive tasks, including appropriate contextual and conditional knowledge</li> <li>Self-knowledge</li> </ul>						

SC SDE (Pat Mohr). Adapted from Lorin W. Anderson, David R. Krathwohl et al (Eds.) *A Taxonomy For Learning, Teaching, and Assessing: A Revision of Bloom's Educational Objectives* © 2001; published by Allyn and Bacon, Boston, MA © 2001 by Pearson Education; reprinted by permission of the publisher.



